



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,485	11/05/2003	Le Trong Nguyen	SP015.C17	7752
26111 7590 01/25/2007 STERNE, KESSLER, GOLDSTEIN & FOX PLLC 1100 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER PAN, DANIEL H	
			ART UNIT	PAPER NUMBER
			2183	
SHORTENED STATUTORY PERIOD OF RESPONSE		NOTIFICATION DATE	DELIVERY MODE	
3 MONTHS		01/25/2007	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 01/25/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

fadkt@skgf.com

Office Action Summary	Application No. 10/700,485	Applicant(s) NGUYEN ET AL.	
	Examiner Daniel Pan	Art Unit 2183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-12, 14-18 and 20-42 is/are pending in the application.
- 4a) Of the above claim(s) 1-7, 13 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-12, 14-18 and 25-42 is/are rejected.
- 7) ☒ Claim(s) 20-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2183

1. Claims 8-12,14-18,20-42 remain for examination. Claims 1-7,13 and 19 have been canceled. T.D. file don 01/05/05 has been received and approved. No new submission is required. Applicant's acknowledge of IDS on 03/24/04 in error has been received.
2. Claims 8-12,14-18,25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vegesna et al. (5,488,729) in view Yoshida (5,481,734).
3. Claims 30-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shintani et al. (4,942,525) in view of Halo (4,594,655).
4. As to the feature of claim 42, examiner holds that a system bus, microprocessor and memory have been known in the art.
5. The rejections are maintained and incorporated by reference the last Office action on 08/11/06. Rejection to claims 20-24 under 103 over Vegesna et al. (5,488,729) in view Yoshida (5,481,734) as applied to claims 8, 14 above, and further in view of Colwell et al. (5,446,912) have been withdrawn.
6. The response filed by applicant on 11/09/06 has been fully considered but is not persuasive.
7. In the remarks, applicant argued that :

Art Unit: 2183

- a) Vegesna taught one system will always be not taken and another system will always be taken; no bias signal to indicate the prediction to be taken or not taken;
- b) Shintani taught distribution of execution results, not the reordering of instructions fetched from memory out of program order;
- c) Shintani did not teach buffer that buffers a plurality of instruction groups pre-fetched by the prefetch unit... wherein when a plurality of instructions of the instruction group are all retired, an entry in the buffer corresponding to the instructions of the instruction group is released;
- d) Shintani did not teach the instruction can be returned from memory out of order and subsequently reordered;
- e) Shintani did not teach instruction stored in a buffer as a plurality of instruction groups;
- f) Shintani did not teach retirement;
- g) Shintani did not teach the instruction completion unit that can advance the contents of a plurality of registers of either 202 or 203 in a forward direction by a number of stages that corresponds to the number of groups of completed instructions.

8. As to a) , examiner holds that determination a taken must have been included not taken for purpose of differentiating the taken state from not taken state, such as "0" and "1". If it is not "0" , it must be "1".

9. As to b) above, Shintani taught parallel execution of the instructions and interrupt of execution of the instruction (see col.2,lines 6-10). The parallel execution itself was out of order, otherwise, there would be no parallel execution and only serial execution.

Art Unit: 2183

10. As to c), e), Shintani did not teach buffer that buffers a plurality of instruction groups pre-fetched by the prefetch unit... wherein when a plurality of instructions of the instruction group are all retired, an entry in the buffer corresponding to the instructions of the instruction group is released (see Shintani's completion of the execution cycle in col.5, lines 65-68, col.6, lines 1-7).

11. As to d) above, Shintani taught rearrangement of the instructions in col.7, lines 32-42, therefore, the rearrangement was the reordering of the instructions. As to the feature of returned from the memory, examiner holds that instructions must be returned from a memory because instructions had to be stored into the memory, or the like.

12. As to f), no specific type retirement of the instructions has been reflected into the claim. Therefore, examiner holds that one of ordinary skill in the art should be able to recognize the completion of Shintani's instructing executions is a retire of the instructions in general (see also discussion regarding the completion of the instructions as retirement in page 6, paragraph 14 of the last Office action on 08/11/06).

1. As to g), Shintani taught a completion of the instruction execution cycle (see col.5, lines 65-68, col.6, lines 1-7). Therefore, the corresponding contents of the registers must be advanced in a forward direction by number of stages (or prefetch, read, decode cycles etc.) , otherwise, the completion cycle would not have been reached.

2. Claims 20-24 are objected to as being dependent upon a rejected base claim, for reciting the details of the retirement of the control, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2183

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Pan whose telephone number is 571 272 4172. The examiner can normally be reached on M-F from 8:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chan, can be reached on 571 272 4162. The fax phone number for the organization where this application or proceeding is assigned is 703 306 5404.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

Art Unit: 2183

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

21 Century Strategic Plan

DANIEL H. PAJ
PRIMARY EXAMINER
GROUP
JAN
2011